

What is Claimed is:

1. A method executed in a computer system for restricting access to a device comprising:

5 receiving a data operation in connection with the device;  
determining a type of said device as one of restricted access and standard access;  
determining if an opcode associated with said data operation is included in one of  
a first set of opcodes and a second set of opcodes, said first set of opcodes specifying  
standard data operations, and said second set of opcodes specifying restricted data  
10 operations;  
determining a target location associated with said data operation; and  
in response to determining one of said first and said second sets of opcodes, said  
type, and said target location, determining if said data operation is valid.

15 2. The method of Claim 1, further comprising:  
determining that said data operation is valid if said opcode is included in said  
second set and said type is restricted.

3. The method of Claim 2, further comprising:  
20 determining that said data operation is valid if said opcode is included in said first  
set and said type is standard.

4. The method of Claim 3, further comprising:

determining that said data operation is valid in response to determining that said opcode is included in said first set, said type is restricted and said location is one of standard access on said device.

5

5. The method of Claim 4, further comprising:

performing said data operation in response to determining that said data operation is valid and otherwise performing error processing.

10

6. The method of Claim 5, wherein each of said first and second sets of opcodes includes a read opcode and a write opcode, each of the opcodes included in said first set being different from each of said opcodes included in said second set.

15

7. The method of Claim 1, further comprising:  
recognizing a device which is of type restricted access by all hosts included in the computer system.

20

8. The method of Claim 7, further comprising:  
restricting access to a recognized device to a particular host in the computer system by having said particular host perform data operations to said recognized device using opcodes included in said second set.

9. The method of Claim 8, wherein only a specific software program executing in the particular computer system is able to access said recognized device by performing data operations using opcodes included in said second set.

5

10. The method of Claim 9, further comprising:  
changing a status associated with a recognized device between restricted and standard.

10

11. The method of Claim 10, further comprising:  
using a configuration file and value included therein to specify said status.

15

12. The method of Claim 9, further comprising:  
performing a data operation to said recognized device that includes a file that is accessible by a plurality of hosts, a first of said plurality of hosts having exclusive access to said file by performing data operations in connection with said recognized device using opcodes included in said second set.

20

13. The method of Claim 1, further comprising:  
installing an application programming interface on a host included in said computer system performing said data operation; and  
using said application programming interface to issue said data operation.

14. The method of Claim 13, further comprising:

configuring said application programming interface in accordance with a device configuration associated with said host wherein said device configuration includes said host accessing at least one device as a restricted access device.

5

15. A computer program product for restricting access to a device comprising:

machine executable code that receives a data operation in connection with the device;

machine executable code that determines a type of said device as one of restricted access and standard access;

machine executable code that determines if an opcode associated with said data operation is included in one of a first set of opcodes and a second set of opcodes, said first set of opcodes specifying standard data operations, and said second set of opcodes specifying restricted data operations;

machine executable code that determines a target location associated with said data operation; and

machine executable code that, in response to determining one of said first and said second sets of opcodes, said type, and said target location, determines if said data operation is valid.

20

16. The computer program product of Claim 15, further comprising:

machine executable code that determines that said data operation is valid if said opcode is included in said second set and said type is restricted.

17. The computer program product of Claim 16, further comprising:

machine executable code that determines that said data operation is valid if said opcode is included in said first set and said type is standard.

5

18. The computer program product of Claim 17, further comprising:

machine executable code that determines that said data operation is valid in response to determining that said opcode is included in said first set, said type is restricted and said location is one of standard access on said device.

10

19. The computer program product of Claim 18, further comprising:

machine executable code that performs said data operation in response to determining that said data operation is valid and otherwise performing error processing.

15

20. The computer program product of Claim 19, wherein each of said first and second sets of opcodes includes a read opcode and a write opcode, each of the opcodes included in said first set being different from each of said opcodes included in said second set.

20

21. The computer program product of Claim 15, further comprising:

machine executable code that recognizes a device which is of type restricted access by all hosts included in the computer system.

22. The machine executable code of Claim 21, further comprising:

machine executable code that restricts access to a recognized device to a particular host in the computer system by having said particular host perform data operations to said recognized device using opcodes included in said second set.

5

23. The computer program product of Claim 22, wherein only a specific software program executing in the particular computer system is able to access said recognized device by performing data operations using opcodes included in said second set.

10

24. The computer program product of Claim 23, further comprising:

machine executable code that changes a status associated with a recognized device between restricted and standard.

15

25. The computer program product of Claim 24, further comprising:

machine executable code that uses a configuration file and value included therein to specify said status.

26. The computer program product of Claim 23, further comprising:

machine executable code that performs a data operation to said recognized device that includes a file that is accessible by a plurality of hosts, a first of said plurality of hosts having exclusive access to said file by performing data operations in connection with said recognized device using opcodes included in said second set.

27. The computer program product of Claim 15, further comprising:  
machine executable code that installs an application programming interface on a  
host included in said computer system performing said data operation; and  
machine executable code that uses said application programming interface to  
5 issue said data operation.

28. The computer program product of Claim 27, further comprising:  
machine executable code that configures said application programming interface  
in accordance with a device configuration associated with said host wherein said device  
10 configuration includes said host accessing at least one device as a restricted access  
device.

29. An apparatus for restricting access to a device in a computer system  
comprising:

15 means for receiving a data operation in connection with the device;  
means for determining a type of said device as one of restricted access and  
standard access;

means for determining if an opcode associated with said data operation is  
included in one of a first set of opcodes and a second set of opcodes, said first set of  
20 opcodes specifying standard data operations, and said second set of opcodes specifying  
restricted data operations;

means for determining a target location associated with said data operation; and

means for determining, in response to said means for determining one of said first and said second sets of opcodes, said type, and said target location, if said data operation is valid.

5           30. The apparatus of Claim 29, further comprising:

means for determining that said data operation is valid if said opcode is included in said second set and said type is restricted.

31. The apparatus of Claim 30, further comprising:

10           means for determining that said data operation is valid if said opcode is included in said first set and said type is standard.

32. The apparatus of Claim 31, further comprising:

15           means for determining that said data operation is valid in response to determining that said opcode is included in said first set, said type is restricted and said location is one of standard access on said device.

33. The apparatus of Claim 32, further comprising:

20           means for performing said data operation in response to determining that said data operation is valid and otherwise performing error processing.



34. The apparatus of Claim 33, wherein each of said first and second sets of opcodes includes a read opcode and a write opcode, each of the opcodes included in said first set being different from each of said opcodes included in said second set.

5           35. The apparatus of Claim 29, further comprising:  
  
          means for recognizing a device which is of type restricted access by all hosts included in the computer system.

10           36. The apparatus of Claim 35, further comprising:  
  
          means for restricting access to a recognized device to a particular host in the computer system by having said particular host perform data operations to said recognized device using opcodes included in said second set.

15           37. The apparatus of Claim 36, wherein only a specific software program  
          executing in the particular computer system is able to access said recognized device by performing data operations using opcodes included in said second set.

20           38. The apparatus of Claim 37, further comprising:  
  
          means for changing a status associated with a recognized device between  
          restricted and standard.

39. The apparatus of Claim 38, further comprising:

means for using a configuration file and value included therein to specify said status.

5 40. The apparatus of Claim 37, further comprising:

means for performing a data operation to said recognized device that includes a file that is accessible by a plurality of hosts, a first of said plurality of hosts having exclusive access to said file by performing data operations in connection with said recognized device using opcodes included in said second set.

10

41. The apparatus of Claim 29, further comprising:

means for installing an application programming interface on a host included in said computer system performing said data operation; and

15 means for using said application programming interface to issue said data operation.

42. The apparatus of Claim 41, further comprising:

means for configuring said application programming interface in accordance with a device configuration associated with said host wherein said device configuration includes said host accessing at least one device as a restricted access device.

20